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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,983	12/21/2005	Donald R. Wellnitz	PHUS030160US	1524
38107 7590 05/16/2007 PHILIPS INTELLECTUAL PROPERTY & STANDARDS 595 MINER ROAD CLEVELAND, OH 44143			EXAMINER VU, MINDY D	
			ART UNIT 2884	PAPER NUMBER
			MAIL DATE 05/16/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/561,983	WELLNITZ ET AL.	
	Examiner	Art Unit	
	Mindy Vu	2884	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,9-13 and 21 is/are rejected.
- 7) ☒ Claim(s) 2-8,14-20 and 22-27 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/21/05</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

This Office Action is in response to Applicant's application filed December 21, 2005.

National Stage Application

The Examiner has considered the international preliminary examination report (IPER).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 9-13 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Mestais et al. (US 6,329,651, hereafter Mestais).

With respect to independent Claim 1, Mestais discloses a method of generating a filter for a nuclear medicine imaging system, the filter for selecting valid detected radiation events for image processing (Abstract), the method comprising: providing a dataset indicative of a plurality of emitted radiation events occurring over a predetermined period of time (Col. 4 lines 52-67); generating signals representative of the response of a detector to the dataset of the plurality of emitted radiation events (Col. 5 lines 58-63); determining a correlation pattern based on a correlation of a plurality of signals resulting from the response of the detector for each of a plurality of single

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radiation events in the dataset (Col. 8 lines 63-67); and generating a filter (Fig. 3, biparametric window) based on the correlation pattern.

With respect to Claim 9, Mestais discloses the data set is obtained by at least one of empirical acquisition, analytical generation and simulation (Col. 6 lines 58-65).

With respect to Claim 10, Mestais discloses a pattern includes indexing the response of the detector to a single radiation event (Col. 5 lines 13-14).

With respect to Claim 11, Mestais discloses generating the filter includes comparing the number of occurrences of the indexed response of the detector to single radiation events to a threshold value (Col. 5 lines 15-22).

With respect to Claim 12, Mestais discloses the threshold value is a predetermined number of occurrences of the indexed response over a predetermined period of time (Col. 5 lines 23-26).

With respect to independent Claim 13, Mestais discloses a method of filtering valid events from invalid events from a plurality of detected events (Abstract), the method comprising: acquiring a data stream of a plurality of detected events with a detector wherein a plurality of related signals is indicative of a single detected event (Col. 4 lines 22-26); applying a correlation filter (Fig. 3, biparametric window) to the data stream of a plurality of detected events to determine whether the detected events are valid; the correlation filter generating a pattern based on a correlation of a plurality of signals resulting from a response of an associated detector to a plurality of single

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radiation events in an ideal dataset (Col. 8 lines 63-67); and processing the valid events (Col. 7 lines 25-30).

With respect to independent Claim 21, Mestais discloses an apparatus for filtering valid detected nuclear events from invalid events from a plurality of detected events (Abstract, Fig. 4), the apparatus comprising: a detector 100 for acquiring a data stream of a plurality of detected events wherein a plurality of related signals is indicative of a single detected event (Col. 4 lines 22-26); a processor (computer 114) for applying a correlation filter to the data stream of a plurality of detected events to determine whether the detected events are valid (Col. 10 lines 1-8), the correlation filter generating a pattern based on a correlation of a plurality of signals resulting from a response of an associated detector to a plurality of single radiation events in an ideal dataset (Col. 10 lines 9-12); and a processor (computer 114) for processing the valid events into images (Col. 9 lines 64-67).

Allowable Subject Matter

3. Claims 2-8, 14-20 and 22-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
4. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not teach or suggest storing the generated filter as a histogram; the correlation pattern is determined from signals based on at least one

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photomultiplier tube sub-set near a peak photomultiplier tube; and determining the location of the detected event after applying the correlation filter to the detected events

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Klingenbeck-Regn et al. (US 5,285,072) discloses a process for the localization of multiple scintillation events in a gamma camera with a number of photomultipliers with the output signals in dependence on a release signal are subjected to pattern recognition.

Miller et al. (US 5,347,129) discloses a system for determining the type of nuclear radiation by producing a correlation value between the shape of the detector signal and pulse shape data previously stored in memory.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mindy Vu whose telephone number is 571-272-8539.


The examiner can normally be reached on M-F 9am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mv



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